

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001528**Date Inspected:** 28-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2100**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Mock-up**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

**Bay II****Tower Mock-up 77 M**

The QA inspector had a conversation with the QA inspector Larry Viars and the ZPMC QC representative Shen Xue Jun. Mr. Shen Xue Jun relayed to the QA inspectors that ZPMC removed two cracks on the root pass weld (approximately 225 mm of length) on the partial penetration weld joint # 72 joining the loose diaphragms to the diaphragms SA-104 and SA-95. The QA inspector asked if ZPMC planned to perform magnetic particle testing (MT). Mr. Shen Xue Jun said that ZPMC planned to weld because ZPMC removed all the crack by air carbon arc gouging process and they were ready to weld. The QA inspector recommended to Mr. Shen Xue Jun to perform magnetic particle testing (MT) before restart welding. ZPMC inadvertently started welding at the junction of the diaphragm SA-95 to the loose diaphragm weld joint # 72. Mr. Shen Xue Jun said that ZPMC wanted to proceed welding. The QA inspector said to Mr. Shen Xue Jun that the crack could propagate to the base metal. The QA inspector had a conversation with ABF representatives. The QA inspector informed ABF representatives that ZPMC removed a crack on the root pass and rewelded the root pass without performing MT to verify that the crack did not propagate to the base metal. ABF representative directed ZPMC to remove the weld and perform magnetic particle inspection after the removal. ZPMC agreed.

**Tower Splice Mock-up 114 M upper segment**

The QA inspector performed ultrasonic testing (UT) verifications at the junction of the skin A and B, the QA

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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inspector did not complete the UT verifications on this date because production activities were in process.

### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Acuna,Alfredo
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Cuellar,Robert
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QA Reviewer
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